

IN THE CLAIMS

The presently pending claims are reproduced below for the Examiner's convenience:

1. (Previously Presented): An aqueous sizing composition for insulation products based on mineral wool, comprising a water-dispersible or water-emulsifiable epoxy resin of a glycidyl ether, wherein the epoxy resin is prepared by the reaction of epichlorohydrin with an alcohol, an amine hardener, and an accelerator selected from the group consisting of imidazoles, imidazolines and mixtures thereof.

2. (Previously Presented): The composition according to claim 1, wherein the accelerator is selected from the group consisting of imidazole, 1-methylimidazole, 2-methylimidazole, 2-phenylimidazole, 2-ethyl-4-methyl-imidazole, 4,4'-methylenebis (2-ethyl-5-methylimidazole) and 2-ethyl-N-phenylimidazoline.

3. (Canceled)

4. (Previously Presented): The composition according to claim 1, wherein the resin has an Epoxy Equivalent Weight of between 150 and 2000.

5. (Previously Presented): The composition according to claim 1, wherein the epoxy resin has a water dilutability, at 20°C, of at least 500%.

6. (Previously Presented): The composition according to claim 1, wherein the hardener is selected from the group consisting of aliphatic polyamines, polyglycoldiamines, cycloaliphatic polyamines, and aromatic polyamines.

7. (Previously Presented): The composition according to claim 1, wherein the accelerator is present in an amount of 0.1 to 5 parts by weight of dry matter per 100 parts by weight of dry matter of epoxy resin/hardener.

8. (Previously Presented): The composition according to claim 1, wherein the hardener has an amine equivalent weight/H ratio of 20 to 300.

9. (Previously Presented): The composition according to claim 1, which includes the following additives, per 100 parts by weight of dry matter of resin/hardener: up to 2 parts, of a coupling agent; and/or up to 20 parts, of an oil.

10. (Previously Presented): A process for manufacturing a thermal and/or acoustic insulation product, based on mineral wool, comprising the steps of: a) forming mineral fibres from a molten mineral composition; b) spraying a sizing composition according to claim 1 onto the fibres obtained at a); c) collecting the fibres in the form of a sheet; and d) subjecting the sheet to a heat treatment at a temperature below about 260°C.

11. (Previously Presented): The process according to claim 10, wherein an accelerator is mixed with the other constituents of the size before being spraying onto the fibres.

12. (Previously Presented): The process according to claim 10, wherein an accelerator is applied separately from the spraying of the other constituents of the size onto the fibres.

13. (Previously Presented): A thermal and/or acoustic insulation product based on mineral wool, prepared with a sizing composition according to claim 1.

14. (Previously Presented): The insulation product according to claim 13, from 0.5 to 15% cured binder.

15. (Previously Presented): The insulation product according to claim 13, which includes a veil of mineral fibres, having a weight of between 10 and 300 g/m², placed on at least one of the external faces of the said product, wherein said veil comprises at least 1% by weight of cured binder obtained from the sizing composition.

16. (Previously Presented): A method for improving the mechanical strength after aging of an insulation product based on mineral wool comprising applying the sizing composition according to claim 1 to the insulation product.

17. (Previously Presented): The method of claim 15, wherein the wool is glass wool or rock wool.

18. (Previously Presented): The composition of claim 4 wherein the Epoxy Equivalent Weight has maximum value of 300.

19. (Previously Presented): The composition according to claim 1, wherein the hardener is selected from the group consisting of diethylenetriamine, triethylenetetramine, tetraethylene-pentamine, 1,3bis(aminomethyl) cyclohexane, 4,4-diaminocyclohexylmethane,

methylenediamine, 2,4-diaminocyclohexanol, m-phenylenediamine, m-xylylenediamine, diethyltoluenediamine, diaminodiphenylsulphone, dicyandiamine, and mixtures thereof.

20. (Previously Presented): The composition according to claim 1, wherein the composition is sprayable.

21. (New): The composition according to claim 1, wherein the alcohol is a polyol.

22. (New): The composition according to claim 1, wherein the alcohol is a diol.